THE

URBAN DISTRICT COUNCIL

OF

WIRKSWORTH.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1904.

PRINTED BY ORDER OF THE COUNCIL.

J. GRATTON, CLERK.

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COPY OF RETURN FROM REGISTRAR-GENERAL
CENSUS, 1901.

County Borough, Municipal Borough, or Urban District.	Wirksworth Urban District.

Civil Parishes and Wards.	Houses.				Population.		
	Inhabited.	Uninhabited.		Building.	Persons.	Males.	Females.
		In Occupation.	Not in Occupation.				
Wirksworth Urban District. Civil Parish. Wirksworth.	907	29	46	2	3807	1821	1986

Rooms in Tenement.	Tenements with less than 4 rooms. 1891 Census.	1901 Census.	Percentage of Tenements with less than 4 rooms. 1891 Census.	1901 Census.	Diminution per cent. of Tenements with less than 4 rooms.
1	—	2	—	—	—
2	82	81	25%	19·8%	5·2
3	128	98	—	—	—

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WIRKSWORTH.

To the Chairman and Members of the Urban District Council of Wirksworth.

Gentlemen,—

I beg to present my report for the year 1904.

The area of the district is 3020 acres. At the 1901 census the population was 3807, the number of inhabited houses 907, and the average number of persons per house 4.19.

The population in 1904, estimated on the excess of births over deaths since 1901, without allowing for emigration, is 3925. For the purpose of calculating statistics it will be safer to base the rate of increase on the average annual increase between the census 1891 and the census 1901 (10 per annum). In this way the estimated population in 1904 is 3840.

BIRTHS.

There were 105 births (62 males, 43 females), corresponding to a birth-rate of 27.34 per 1000 living, as compared with 28.21, our average birth-rate for the previous ten years. The average birth-rate in England and Wales per 1000 living was:—

1873-77	35.8
1878-82	34.4
1883-87	32.9
1888-92	30.8
1893-97	29.9
1898-1902	28.8

The real test of national vitality is not the prolongation of adult life, but the renewal of the stock. Our steadily falling birth-rate is, therefore, a matter of anxiety. In country districts the birth-rate is naturally lowered by the migration of persons in the reproductive period of life to large centres; the decrease in the birth-rate of the whole country seems to imply that

the more strenuous life in towns lowers the rate of reproduction.

DEATHS.

The number of deaths registered in the district was 59, corresponding to a death-rate of 15.36 per 1000 living. One of the deaths registered was a non-resident, who died at the Cottage Hospital. Three deaths of residents occurred at public institutions outside the district, *viz.*, Heage Isolation Hospital, 1; Mickleover Asylum, 2. The nett deaths at all ages belonging to the district is, therefore, 61, corresponding to a nett death-rate of 15.88 per 1000 living, as compared with 17.31, the average death-rate of the previous ten years. In the last 22 years the average death-rates have been as follows:—

1883—1893 ..... 19.1 per 1000 living
1894—1904 ..... 17.1 ,, ,, ,,

In the last eleven years, as compared with the previous eleven years, we have a gain of two lives per 1000 living per annum, or 77 lives in all.

Infantile Mortality.—A satisfactory feature in the year's statistics is the decline in infant mortality, and this is all the more notable as infantile mortality usually rises in hot and dry summers such as 1904. There were 8 deaths of infants under one year of age, corresponding to a death-rate of 76.19 per 1000 births registered, as compared with 113.83, the average for the previous ten years. Of the 8 infants who died, 3 survived birth only a few hours, and 2 died from zymotic diseases. In the early part of the year your Council issued printed circulars on the feeding of infants, and it is interesting to note the improvement in the infant mortality, which is emphasised by the fact that in the first six months of the year there was only one death of an infant under one year of age.

During the year there were only 3 deaths between the ages of 1 and 5 years. 20 of the deaths were of persons over 65 years, and of these 12 were over 70, and 2 over 80.

TUBERCULAR DISEASES.

There were 2 deaths from Pulmonary Tuberculosis, and 2 from other tubercular diseases, corresponding to a death-rate of 1.04 per 1000 living, as compared with 1.57, our average in the previous ten years.

The way to deal effectually with these diseases has recently been disclosed by science. Dr. Barwise, the County Medical Officer, in his last annual report, writes:—

"It cannot be too clearly stated—

1. *That consumption is not hereditary.*
2. *That the disease is spread by the sputum drying and being blown about.*"

And he urges that notices should be posted in public places requesting people not to spit on the floors of rooms, carriages, or other enclosed spaces. He adds that the one step that would advance the movement against Phthisis more than any other, is the establishment in the county of a sanatorium for consumptives. Any

proposal with that end in view is worthy of your Council's warmest support.

CANCER.

There were four deaths from Cancer, corresponding to a death-rate of 1.04 per 1000 living.

ZYMOTIC DISEASES.

There were 40 cases of infectious disease reported in the district.

Diphtheria, ...	6 ;	removed to Hospital	3
Scarlet Fever	32 ;	,, ,, ,,	21
Enteric Fever	2 ;	,, ,, ,,	1

Each case as it occurred was carefully inquired into; the Elementary Schools were notified, and children from infected houses were excluded from School. On the removal of the patient to the hospital, or at the end of the illness, if they stayed at home, disinfection was carried out by your Sanitary Inspector; rooms were sprayed by the Mackenzie Spray, with Formalin, and then fumigated with sulphur, and bedding and woollen clothing were taken to the isolation hospital to be stoved.

Diphtheria.—One case occurred in February and five in October. In all the cases except one the diagnosis was confirmed by the Pathological Department of the University of Birmingham. No connection was traced between the cases. In one case the disease was contracted outside the district. Owing to the scanty rainfall and scarcity of water the sewers were inadequately flushed in the Autumn, and this may possibly account for the outbreak in October.

Two of the cases proved fatal, corresponding to a case mortality of 33 per cent. All the cases, except one of the two that proved fatal, were treated with Antitoxin. It is beyond all question that Antitoxin treatment of Diphtheria is beneficial not only for the patient, but for the safety of the public, and it is desirable that the free use of Antitoxin in the district should be granted by your Council.

Scarlet Fever.—Thirty-two cases were reported, of which 21 were removed to the hospital, and 11 remained at home. Of those removed to the hospital, all recovered; of those who remained at home, 1 died. In the latter part of November the hospital being full, we were unable to send our cases there, and in three weeks we had 10 cases in the district.

Enteric Fever.—Of the two cases, one contracted the disease outside the district and was removed to the hospital; the circumstances of the other case were carefully investigated. There was no death from this disease.

German Measles.—A considerable epidemic of German Measles occurred in December, for the most part amongst the younger children. The attendance at some of the Elementary Schools fell off 30 to 40 per cent., and the managers, by your advice, closed for the Christmas holidays a week earlier than intended. During the holidays all the Elementary Schools were disinfected by your Sanitary Inspector.

SANITARY WORK.

A statement of the work done by your Sanitary Inspector will be found appended.

Plans were passed for 14 new houses. All new building was regularly inspected by your Surveyor, and the drainage was tested. Your Council passed a bye-law making the minimum height of rooms 8ft. 6in.

The drainage of 10 houses was remodelled; 4 privies were converted into w.c.'s; 18 insanitary privies were made sanitary, and 7 defective w.c.'s were repaired. One old insanitary house was pulled down.

The district has been regularly and systematically inspected. Informal notices were served for the removal of 146 offensive accumulations, and in 144 the nuisance was abated. In the Summer, owing to the scarcity of water, the streets were not regularly watered; but the street sewers were disinfected. Over 200 street gullies have direct open communication with the sewers; these are being replaced by properly trapped gullies in St. John Street, West End and North End. The same should be done in the streets of the crowded areas of Greenhill and Dale.

The Council are now raising a loan for rechanneling the principal streets, which will do away with the old insanitary pitched gutters.

SCAVENGING.

This is the weakest spot in our sanitary work. So long as the householder is diligently looked after, accumulations of night-soil, house refuse and filth are approximately prevented. The improvement in the mortality and the health of the district I believe to be due to the thorough and systematic manner in which your Sanitary Inspector has discharged this part of his duties. The present condition of the district can only be maintained by constant supervision. The moment supervision is relaxed, privies and ashpits get overfull, the death-rate goes up, and a vast amount of preventable ill-health, not shown by the death-rate, falls on those least able to bear it; for it is around the humble dwelling that these nuisances exist, and it is the poor, already handicapped enough in life, who suffer; impecuniosity naturally driving these essentials of health to the latest possible moment. Removal of night-soil, etc., at least four times a year, must cost the ratepayers not less than ten shillings. In my last annual report I gave an estimate, prepared by your Sanitary Inspector, of the cost of systematically scavenging the district by the Council. It amounted to a twopenny rate. I leave you to calculate how many ratepayers, and particularly how much the poorer ratepayers, would be in pocket by the Council doing for them what they now do at their own expense. Of this I am certain, that no high standard of cleanliness will be ever attained, and no further improvement in our statistics will be possible until the sanitary authority exercises its power to undertake the

systematic removal of night-soil and house refuse.

COMMON LODGING-HOUSE.

Number on register, 1. This was inspected ten times, and found in satisfactory order. There has been no complaint as to management. The ventilation of the sleeping-rooms has been improved.

The Council's bye-laws, which were passed in 1879, have no clause fixing the amount of cubic space, but the space per bed allowed is 500 cubic feet.

The arrangements for separation of the sexes are as follows:—First floor inner room for married persons; outer room for single women; second floor for men only.

SLAUGHTER-HOUSES.

Number on register, 8. There were 48 inspections made, and no infringement of the bye-laws was discovered.

BAKEHOUSES.

Number on register, 7. There were 42 inspections made, and no infringement of the bye-laws was found.

DAIRIES AND COWSHEDS.

Number on register, 39. There were 68 inspections made, and three notices were served for infringement of the bye-laws.

FACTORIES, WORKSHOPS, AND WORKPLACES.

Number on register, 29. Number of inspections, 48. We have received no lists of outworkers. The sanitary accommodation at one workshop requires attention. In one workplace the ventilation has been improved. Improvements were made at one bakehouse. A satisfactory fire escape is being provided at one factory. There was one case of infectious disease notified in homeworker's premises, and one order was made prohibiting homework in infected premises. Six persons residing in infected houses were stopped from going to work.

ELEMENTARY SCHOOLS.

Your Sanitary Inspector has made an inspection of the Elementary Schools, and reports that they are all in a satisfactory state. The ventilation is good and the sanitary arrangements are adequate and in order. In all four schools the outer doors, which would be used for exit in case of fire, open inwards.

MIDWIVES' ACT.

All the Midwives practising in your district are now registered under the Act, and their work is periodically supervised by the lady superintendent appointed by the County Council.

WATER.

The following are the monthly returns by your Water Bailiff of the gallons per hour flowing from your springs:—

Month. 1904.	Town and District.	Bole Hill and Steeple Grange.	Total supply. gallons
January	8856	... 492 ...	9348 per h'r
February ...	16,760	... 615 ...	17,375 ,,
March	9840	... 492 ...	10,332 ,,
April	5904	... 615 ...	6519 ,,
May	4674	... 492 ...	5166 ,,
June	2952	... 363 ...	3315 ,,
July	2460	... 492 ...	2952 ,,
August	2706	... 363 ...	3069 ,,
September ..	1839	... 363 ...	2202 ,,
October	1476	... 363 ...	1839 ,,
November ..	1347	... 363 ...	1710 ,,
December ...	1968	... 492 ...	2460 ,,

The monthly rainfall, measured by Mr. Gibbs, at Bridge House, is as follows:—

Month.	Inches.		Rainy days.		United K'gdom, inches.		United K'gdom, days.
January ...	3.21	in	21	...	4.58	...	25
February .	5.05	,,	23	...	5.02	...	23
March	2.19	,,	22	...	2.16	...	13
April	2.13	,,	16	...	2.87	...	20
May	.9	,,	12	...	2.78	...	20
June	.91	,,	9	...	2.02	...	12
July	2.63	,,	13	...	2.42	...	14
August	4.15	,,	15	...	3.51	...	18
September.	1.44	,,	9	...	3.25	...	15
October	1.4	,,	7	...	3.64	...	21
November .	1.6	,,	12				
December .	2.18	,,	15				
1904.....	27.79	,,	174				

A statement of the yearly rainfall at Bridge House since 1891 will be found appended. The average yearly rainfall, 1891-1903 inclusive was 32.6in. The rainfall in 1904 is consequently 4.81in. below the average. The heaviest rainfall was on the 18th August, when 1.95in. were measured; on the 26th and 28th July over an inch of rain fell.

Comparing the yield of your springs with the monthly rainfall it will be seen how immediately the springs vary with the rainfall.

The requirements of your district may be placed at 25 gallons per head per day—that is, 96,000 gallons per day for 3840 persons, which is equivalent to a flow of 4000 gallons per hour from the springs. The Water Bailiff's monthly returns show that from June to December (inclusive) the district was short of water, and this was particularly the case in October and November, when there were barely 12 gallons per head. In the 24 years of which we have record, the springs were only once lower than in November (1710 gallons per hour), *viz.*, in December, 1893, when, after seven months' drought, they yielded 1500 gallons per hour. The drought of 1893 continued until March, 1894, when the springs rose to 9000 gallons per hour. Ten months' drought was experienced in 1887-8, but the springs did not go below 2000 gallons per hour. On this occasion the improvement came in April, when they rose to 7000 gallons per hour.

In our water supply we live from hand to mouth—dependent on the rainfall. In one year only (1891) in the last 24 years the supply has been above 4000 gallons per hour throughout the year; in three years during that period the supply has been below that amount for from seven to ten months. The danger to health, the discomfort and annoyance to householders, and the disturbance of trade from scarcity of water, are obvious.

Your Council has decided to complete a scheme for additional water supply, and during the year it has had your constant and careful attention. You instructed Mr. Percy Griffith, M.Inst.C.E., to prepare and present a report. He has paid three visits to the district, and carefully investigated eight alternative proposals. We may, therefore, hope that a satisfactory scheme will be decided on, and that before long the work will be in progress.

The monthly temperature records will be found appended. For these, as well as for the rainfall statistics, we are again indebted to Mr. Gibbs, of Bridge House.

I have the honour to be,
Mr. Chairman and Gentlemen,
Your obedient Servant,
A. E. BROSTER.

Wirksworth, 16th March, 1905.

SANITARY INSPECTOR'S STATEMENT OF WORK.

DWELLING-HOUSES—

Inspections	429
Unfit for habitation	2
Infected	36
Disinfected	36

INSPECTIONS—

Dairies and Cowsheds	68
Slaughter-houses	48
Bakehouses	42
Common Lodging-houses	10
Workshops	48

	Informal Notices.	Legal Notices.	Nuis'ces Abated.
Defective traps and drains	17	—	17
Drains obstructed	8	—	8
Insanitary privies and ashpits	18	—	18
Conversion of w.c.'s into privies	4	—	4
Defective closets	7	—	7
Surface of courts and yards	2	—	2
Eavespouts and downspouts	3	—	3
Offensive accumulations	146	—	144

	Informal Notices.	Legal Notices.	Nuis'ces Abated.
Animals improperly kept	1	—	1
Overcrowding	5	—	3
Foul condition of houses	9	3	6
No disconnection of wastepipe	5	—	5

TEMPERATURE FOR YEAR ENDING 31ST DECEMBER, 1904, AT BRIDGE HOUSE.

Month.	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	United Kingdom mean.
Jan.	42¾	32	37½	52	24	43
Feb.	34½	31	32¼	50	22	41
March	43	31½	37	57	26	42
April	54	39	46	62	32	47
May	60	43	51	70	35	50
June	63	46½	54½	74	42	55
July	71	53	62	78	43	59
Aug.	63	50	56	80	40	58
Sept.	62	46	54	69	39	56
Oct.	57	41½	50	65	30	52
Nov.	46	35	41	58	30	—
Dec.	42	31½	36¾	54	20	—

REMARKS.—Thermometer in shade 4ft. above ground, 500ft. above sea-level. Mean max. for year, 53¼; Mean min. for year, 40; Mean temp. for year, 46¾; or, ¾ lower than last year.

THOMAS GIBBS.

RAINFALL SINCE 1901.

Measured at Bridge House.

1891	40.66	inches
1892	28.69	,,
1893	22.77	,,
1894	29.55	,,
1895	32.36	,,
1896	32.4	,,
1897	35.32	,,
1898	29.6	,,
1899	32.24	,,
1900	40.1	,,
1901	32.35	,,
1902	29.45	,,
1903	38.32	,,
	423.81	inches

Average of 13 years, 32.6 inches. The rainfall in 1904 is 4.81 inches below the average of the previous 13 years.

THOMAS GIBBS.